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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/356,505	07/19/1999	HIEYA TAKEO	Q55129	7922

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DARRYL MEXIC
SUGHRUE MION ZINN MACPEAK & SEAS PLLC
2100 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 200373202

EXAMINER
BHATNAGAR, ANAND P

ART UNIT	PAPER NUMBER
2623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/356,505	TAKEO, HIEYA
	Examiner	Art Unit	
	Anand Bhatnagar	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) *5-9,14,15,20 and 21* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-4,10-13 and 16-19* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Claim Objections

1.   Claims 5-9, 14, 15, 20, and 21 are objected to under 37

CFR 1.75(c) as being in improper form because a multiple dependent

claim cannot be dependent from another multiple dependent claim(s).

See MPEP § 608.01(n). Accordingly, these claims will not been further

treated on the merits.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made

in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another
filed in the United States before the invention thereof by the applicant for patent, or on an
international application by another who has fulfilled the requirements of paragraphs (1), (2),
and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors

Protection Act of 1999 (AIPA) do not apply to the examination of this

application as the application being examined was not (1) filed on or after

November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b).

Therefore, this application is examined under 35 U.S.C. 102(e) prior to the

amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4, 10-13, are16-19 rejected under 35 U.S.C. 102(e) as

being anticipated by Kolesnik et al. (U.S. patent 6,249,614).

Regarding claims 1, 10, and 16: Kolesnik et al. discloses a data

compression method (col. 1 lines 65-67) of obtaining compressed coded

data by quantization of original data (col. 2 lines 5-8, fig. 1 block 110) to

obtain quantized data followed by coding and compression (fig. 1 block

130 and 150 and col. 4 lines 17-18, 27-31, and 39-41, where the

multiplexer compresses the data signal after it is coded) of the quantized

data, the data compression method comprising the steps of:

classifying the quantized data into data having a value representing

the quantized data (col. 4 lines 20- 23 and fig. 1 block 110, where the

"quantized coefficient matrices" are the values representing the data) and

at least one set of classified data representing a data value other than the

representative (col. 4 lines 26-35, fig. 1 block 110, and fig. 12 where the

quantized matrices are divided into sub-matrices which have different

values from the original quantized coefficient matrices and are classified

as either dense, sparse, or zero matrices) value while obtaining

classification information data regarding the classification (col. 4 lines 26-

35, where the sub-matrices are classified as dense, sparse, or zero

matrices);

coding the classification information data according to a first coding

method (col. 4 lines 29-34, col. 10 lines 38-61, fig. 1 block 130, and fig. 12,

where the matrices are coding by different coding methods depending on

the classification of the matrices as dense, sparse, or zero); and

obtaining the coded data by coding at least the classified data

according to a second coding method, out of the classified data and the

data having the representative value (col. 4 lines 29-34, col. 10 lines 38-

61, fig. 1 block 130, and fig. 12, where the matrices are coding by different

coding methods depending on the classification of the matrices as dense,

sparse, or zero);

Regarding claims 2, 11, and 17: wherein the second coding method

is different between the data having the representative value and each set

of the classified data (col. 4 lines 29-34, col. 10 lines 38-61 and fig. 10

numbers 1005 –1055, where different coding techniques are used

depending on the classification of the matrices).

Regarding claims 3, 12, and 18: wherein the quantized data are

obtained by carrying out wavelet transform on the original data followed by

quantization thereof (col. 4 lines 49-54 and fig. 1 blocks 105 and 110,

where the quantization takes place after the signal has undergone a

wavelet transform decomposition).

Regarding claims 16-18: As for the limitation of a computer

readable recording medium used to perform limitations above (Kolesnik et

al.; fig. 14 blocks 1405, 1410, and 1450).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the

basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described
as set forth in section 102 of this title, if the differences between the subject matter sought to
be patented and the prior art are such that the subject matter as a whole would have been
obvious at the time the invention was made to a person having ordinary skill in the art to which
said subject matter pertains. Patentability shall not be negatived by the manner in which the
invention was made.

Claims 4,13, and 19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kolesnik et al. (U.S. patent 6,249,614) and Nafarich

(U.S. patent 6,252,994).

Regarding claims 4, 13, and 19: wherein the quantized data are

obtained by carrying out DCT on the original data followed by quantization

thereof.

Kolesnik et al. discloses an image data compression method which

initially decomposes an image signal (fig. 1 blocks 105 and 110 and col. 4

lines 49-55) before it is quantized to undergo data compression. Kolesnik

et al. further discloses that alternative methods can be used to decompose

a signal (Kolesnik et al.; col. 4 lines 64-67). Kolesnik et al. does not

disclose to use DCT as one method to decompose the signal before

quantization. Nafarich teaches to perform DCT on a image signal before

quantization followed by coding and lastly compression (Nafarich; fig. 4

blocks 102,104F,408F,110, and 114). It would have been obvious to one

skilled in the art to combine the teaching of Nafrich to that of Kolesnik et

al. because they are analogous in data quantization, coding, and

compression. On skilled in the art would have been motivated to substitute

the DCT decomposition unit of Nafarich for the wavelet transform

decomposition unit of Kolesnik et al. to create longer strings of zero-value

coefficients which enables greater data compression (Nafarich; col. 1 lines

62-67).

Regarding claim 19: As for the limitation of a computer readable

recording medium used to perform limitations above (Kolesnik et al.; fig.

14 blocks 1405, 1410, and 1450).

Conclusion

4.   The prior art made of record and not relied upon is considered

pertinent to applicant's disclosure.

Sodagar et al. (U.S. patent 6,298,163) for wavelet transformation of

a signal followed by quantization and coding.

Boon (U.S. patent 6,349,149) for image decomposition using **DCT**.

Ratnakar (U.S. patent 6,256,415) for wavelet transform and coding.

5.   Any inquiry into this communication should be directed to Anand

Bhatnagar whose telephone number is 703-306-5914, whose supervisor is

Amelia Au whose number is 703-308-6604, group receptionist is 703-305-

4700, and group fax is 703-872-9314.

AB

Anand Bhatnagar

Art Unit 2623

April 22, 2002

JOSEPH MANCUSO
PRIMARY EXAMINER